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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/880,506

06/13/2001

Donald K. Jones

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27717

7590

02/26/2004

SEYFARTH SHAW
55 EAST MONROE STREET
SUITE 4200
CHICAGO, IL 60603-5803

EXAMINER

ODLAND, KATHRYN P

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 02/26/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/880,506

Applicant(s)

JONES ET AL.

Examiner

Kathryn Odland

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-14, 16, 17, 20 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-14, 16, 17, 20 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment/RCE

This is a response to the RCE and amendment dated January 29, 2004. Claims 1-4, 6-14, 16, 17, 20 and 27 are pending.

Response to Arguments

1. Applicant's arguments with respect to claims 1, 11 and 20 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, introducer that is coupled to the proximal portion must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 4, 11, 14, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Wallace et al. in US Patent No. 6,280,457.

Regarding claims 1 and 11, Wallace et al. disclose a method for occluding the vasculature/treating an aneurysm of a patient, via providing an introducer (generally 304) having a detachment portion (such as 302) for holding and releasing an embolic coil (generally at 100, etc), as recited in column 10, lines 40-60 and seen in figure 5B; providing a plurality of embolic coils (generally at 100) having a proximal portion that is held by the detachment portion, as seen in figure 5B and a distal portion, the proximal portion that is held by the detachment portion being **relatively** smooth and the distal portion having a **relatively** textured surface. It is noted that the scope of relatively smooth and relatively textured has not been established. It is not clear what the basis is for comparison. Nonetheless, Wallace discloses a relatively smooth attachment portion. Further, the distal portion is relatively textured since it is coated with a filament (such as 102, etc.) that does not extend to the tip, as recited in columns 5 and 6 and seen in figures 1-5B. Moreover, Wallace et al. also disclose introducing the plurality of embolic coils into the patient's vasculature/aneurysm using the introducer that is coupled to the proximal portion, whereby the textured surface provides improved platelet adhesion compared to a non-textured surface to promote clotting, as discussed throughout the specification and seen in figures 1-5B.

Regarding claims 4 and 14, Wallace et al. disclose that as applied to claims 1 and 11, as well as, a coil that is a platinum-tungsten alloy wire, as recited in column 6, lines 10-20.

Regarding claim 20, Wallace et al. disclose a embolic coil formed of a platinum alloy wire, as recited in column 6, lines 8-18, having a proximal portion which is adopted to be held by a detachment portion (such as 302) of an introducer (generally at 304) and a distal portion, the proximal portion which is adapted to be held by a detachment portion (such as 302) of an introducer being **relatively** smooth and the distal portion having a relatively textured surface which, when implanted provides improved platelet adhesion compared to non-textured surfaces, to promote clotting, as discussed above with regard to claims 1 and 11 as well as throughout the specification and seen in figures 1-5B.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3, 6-10, 12, 13, 16, 17, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallace et al. in US Patent No. 6,280,457 in view of Plowiecki in FR2696636 or Jacobsen et al. in US Patent No. 6,530,934.

Regarding claims 2, 3, 12 and 13, Wallace et al. disclose the system as applied to claims 1 and 11. However, Wallace et al. do not recite texturing the surface of an embolic coil by abrasion or sandblasting.

On the other hand, Plowiecki teach a method for occluding the vasculature of a patient via providing a plurality of embolic coils having a textured surface; introducing the plurality of embolic coils into the patient's vasculature, whereby the textured surface provides improved platelet adhesion compared to a non-textured surface, to promote clotting, as stated in the abstract and seen in figure 1. Additionally, Jacobsen et al. teach a method for occluding the vasculature of a patient via providing a plurality of embolic coils having a textured surface; introducing the plurality of embolic coils into the patient's vasculature, whereby the textured surface provides improved platelet adhesion compared to a non-textured surface, to promote clotting, as recited in column 4, lines 48-65. Further, texturing via methods such as abrasion and sandblasting are well-known common methods and the current specification does not demonstrate the criticality of abrasion or sandblasting.

Thus, it would be obvious to one with ordinary skill in the art to modify the invention of Wallace et al. to replace the polymer coating for texturing via abrasion for the purpose of promoting clotting.

Regarding claims 6 and 16, Wallace et al. disclose that as applied to claims 1 and 11. However, Wallace et al. do not recite a coil that has a

substantially uniform roughness having pockets having diameters between about 0.125 microns and about 50 microns.

On the other hand, Plowiecki teach a method for occluding the vasculature of a patient via providing a plurality of embolic coils having a textured surface; introducing the plurality of embolic coils into the patient's vasculature, whereby the textured surface provides improved platelet adhesion compared to a non-textured surface, to promote clotting, as stated in the abstract and seen in figure 1. Additionally, Jacobsen et al. teach a method for occluding the vasculature of a patient via providing a plurality of embolic coils having a textured surface; introducing the plurality of embolic coils into the patient's vasculature, whereby the textured surface provides improved platelet adhesion compared to a non-textured surface, to promote clotting, as recited in column 4, lines 48-65. Further, texturing via methods such as abrasion and sandblasting are well-known common methods and the current specification does not demonstrate the criticality of abrasion or sandblasting.

Thus, it would be obvious to one with ordinary skill in the art to modify the invention of Wallace et al. to replace the polymer coating for texturing via abrasion for the purpose of promoting clotting.

Further, although not explicitly recited, an embolic coil that has substantially uniform roughness with pockets having diameters between about 0.125 microns and about 50 microns would be obvious to one with ordinary skill in the art and within the scope of the invention. Further, the current specification

does not demonstrate the criticality of an embolic coil that has substantially uniform roughness with pockets having diameters between about 0.125 microns and about 50 microns. In fact, page 5 of the specification recites, "***Although no limitation is intended***, as a specific example the texturization provides a uniform roughness comprising pockets having diameters between about 0.125 microns and about 50 microns and depths between about 0.25 microns and about 20 microns." Thus, when modifying the invention of Wallace et al. to include texturing for the purpose of promoting clotting, it would be obvious to assure that the embolic coil has substantially uniform roughness and has pockets having diameters between about 0.125 microns and about 50 microns as within the scope of the invention although not explicitly recited.

Regarding claims 7, 17 and 27, Wallace et al. discloses that as applied to claim 20 and Wallace et al. as modified by Plowiecki or Jacobsen et al. disclose the system as applied to claims 6 and 11. Further, although not explicitly recited, an embolic coil that has pockets that have depths of between about 0.25 microns and about 20 microns would be obvious to one with ordinary skill in the art and within the scope of the invention. Further, the current specification does not demonstrate the criticality of an embolic coil that has pockets that have depths of between about 0.25 microns and about 20 microns. In fact, page 5 of the specification recites, "***Although no limitation is intended***, as a specific example the texturization provides a uniform roughness comprising pockets having

diameters between about 0.125 microns and about 50 microns and depths between about 0.25 microns and about 20 microns." Thus, when modifying the invention of Wallace et al. to include texturing for the purpose of promoting clotting, it would be obvious to assure that the embolic coil that has pockets that have depths of between about 0.25 microns and about 20 microns as within the scope of the invention although not explicitly recited.

Regarding claims 8-10, Wallace et al. disclose the system as applied to claim 1 above. Claim 8 recites, "the embolic coils are used to embolize a vessel for vessel sacrifice." Claim 9 recites, "the embolic coils are used to reduce or block blood flow to an arterial-venous malformation or to a fistula." Claim 10 recites, "the embolic coils are used to block blood flow to tumor." These claims are alternates of intended use and within the scope of the invention although not explicitly recited. Furthermore, the criticality for these intended use limitations have not been demonstrated in the specification of the current application. Moreover, Plowiecki discloses that as applied to claim 9 and Jacobsen et al. discloses that as applied to claims 8 and 9. Thus, it would be obvious to employ the teachings of Plowiecki and Jacobsen et al. to treat that stated above.

Conclusion

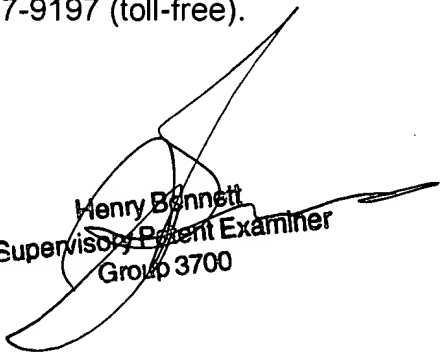
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are as follows: US Patent No. 6,660,020; US Patent No. 6,033,582; US Patent No. 5,382,259; and US Patent No. 5,354,295.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathryn Odland whose telephone number is (703) 306-3454. The examiner can normally be reached on M-F (7:30-5:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry A Bennett can be reached on (703) 308-0101. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KO


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